



United States Department of Agriculture

ArcGIS Online Maps and Apps INFORMATION SHEET

March 2017

What is ArcGIS Online?

ArcGIS Online is a cloud based content management system for geographic information. It can be thought of as a browser or web based geographic information system (GIS) which allows users to both publish and consume geographic information without installing any additional software on their computer. In cloud terminology this software is often referred to as a Service or (SAAS). ArcGIS Online provides a vehicle for sharing web maps and applications that are informational and interactive. Items and data are easily shared with a wide variety of users including other federal agencies, state and local entities, GIS professionals, and the public.

What is a web map?

A web map consists of a collection of geographic layers containing features such as dots (“points”) representing wells, or locations of crimes, lines representing roads or rivers, or shapes (“polygons”) representing states or district boundaries. Features such as color, size, or symbol used to represent each feature can be different to indicate differences in pieces of information about a feature called attributes. For example, a layer of farm silos might have a different symbol size to show larger buildings. Likewise “polygon” layers of state boundaries might be a darker green proportional to the number of farms in that state.

A web map often contains a special layer called a basemap. The basemap provides contextual information that helps the map viewer understand what area they are viewing on the map (e.g. Salt Lake, Washington D.C. or just north of interstate 80). A basemap can also concentrate on certain aspects or features of the landscape such as roads, cultural features, or even aerial imagery. Basemaps can be thought of as a backdrop for a particular map’s subject matter.

As the name implies, web maps exist on the web. These types of maps can be accessed in browsers, embedded in any website, or opened on mobile devices such as smartphones and tablets.

Are there any advantages of web maps compared to traditional paper maps?

Web maps have some advantages over traditional paper maps. One advantage is the ability to update constantly changing information in real time or near real time. The National Agriculture Imagery Program (NAIP) [status map](#) is an example of information that is updated in near real time, meaning an automated process checks for updates every few minutes. As information changes the web map reflects these changes throughout the day. Another advantage is that many web maps are interactive. A user can click on features in the map and get specific information via an informational pop-up, or they can pan and zoom to an area of interest. Web maps are easily updated using browser based tools such as ArcGIS Online without necessarily having access to desktop GIS tools. Web maps can also be viewed on a number of devices including smartphones, tablets, and desktop applications. A paper map, unless it exists in digital form, would have to be digitized or scanned to make it available to these devices.

What is a web App?

A web App in the context of ArcGIS Online is a configurable application that is built from a web map. Web Apps can combine tools and GIS functionality to provide a particular user experience that may be more focused on some type of action like editing than a web map. For example a web App such as the [NAIP Imagery Feedback](#) app allows users to easily place observations and comments about NAIP imagery in a spatial context, providing the Aerial Photography Field Office (APFO) with real time information about what users observe about the imagery.

Another very popular type of hybrid between a web map and web mapping application is a Story Map.

What is a Story Map?

A story map tells the viewer a story using maps, and multimedia content such as photos, text, audio, and videos. They provide a rich user experience that can provide more information than either a web map or web App alone. There are different templates for story maps such as the [map tour](#) which is often used for a series of

locations or sequential information. The story map [journal](#) provides more of a map-based narrative that has the ability to combine maps, video, images, and text. The story map series presents a series of maps using tabs and text. For more information and an overview of the various types of story maps visit the [story maps](#) information page.

How does USDA's Farm Service Agency (FSA) and Aerial Photography Field Office (APFO) use web maps and apps?

Web maps and apps are used to provide information to a variety of government agencies and the public. APFO provides a number of public maps hosted on ArcGIS Online including acquisition status for the NAIP and Forest Service Resource imagery programs. The NAIP Imagery Feedback App offers users the ability to provide comments and observations about current NAIP imagery. Diverse users have the ability to share information spatially and visually to help improve the NAIP imagery program.

ArcGIS Online maps and apps are also used by FSA to provide historical information about a number of programs. These include a map showing the history of the NAIP imagery program through a story map, and a web map of historical imagery holdings available from APFO, providing users with an overview of available imagery since 1955. APFO hosts several gallery apps with historical imagery from the National High Altitude Photography Program (NHAP) and the National Aerial Photography Program (NAPP). FSA also hosts a story map about the 30 year history of the conservation reserve program, which includes user success stories and videos.

Online maps and apps are a great way to share information and engage users with interactive data. They have become a unique communication medium which provides a wealth of information to users.

How do you find ArcGIS Online Maps and Apps?

The [APFO website](#) has links to some of the maps and apps mentioned above including the NAIP status maps and NAIP Imagery Feedback app. For a more comprehensive list of web maps go to the [ArcGIS Online](#) web page and search in the box at the top of the page. Using search terms like [APFO](#), [FSA](#), and [USDA](#) will provide a list of all publicly available items which can be searched without having to login or create an account with ArcGIS Online. Results can also be narrowed by item type such as maps, layers, and apps.

If you know what you are looking for, using more specific search terms is useful.

Who do I contact for more information?

1. If you have general questions about the USDA-FSA-APFO ArcGIS Online maps, contact GIS Specialists Joan Biediger 801-844-2951 or Louise Mathews 801-844-2934.